



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,025	03/31/2004	Ti-Wen Yuan	BHT-3212-57	3871

7590 09/25/2006
TROXELL LAW OFFICE PLLC
SUITE 1404
5205 LEESBURG PIKE
FALLS CHURCH, VA 22041

EXAMINER

LE, NHAN T

ART UNIT	PAPER NUMBER
----------	--------------

2618

DATE MAILED: 09/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/813,025

Applicant(s)

YUAN, TI-WEN

Examiner

Nhan T. Le

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,6,7,11,12,16 and 17 is/are rejected.
- 7) ☒ Claim(s) 3-5,8-10,13-15 and 18-20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 10/05/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1, 6, 11, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morimoto (US 2004/0176148) in view of Ichihara (US 6,275,699).

As to claims 1, 11, Morimoto teaches an automatic frequency control system (see fig. 2, number 43, paragraphs 0025, 0028-0030) applied in a mobile station of a wireless cellular system for automatically controlling a frequency signal to be substantially synchronized with an input signal which is a first received signal from a first base station and being capable of shifting the frequency of the local frequency signal to be close to that of a second received signal from a second base station when the input signal is changed from the first received signal to the second received signal, the system comprising: an automatic frequency controller (see fig. 2, number 43, controlling signal for radio unit, paragraphs 0025, 0028-0030) for receiving the input signal and generating the frequency signal; and a control module (see fig. 2, number 43, paragraphs 0025, 0028-0030); wherein when the input signal is changed from the first received signal to the second received signal. Morimoto fails to teach where the AFC controlling a local frequency signal; a memory unit for storing a plurality of AFC parameter sets, each AFC parameter set being corresponding to a base station within

Art Unit: 2618

the wireless cellular system and the control module fetches the AFC parameter set, which corresponds to the second base station, from the memory unit and applies the fetched AFC parameter set, which corresponds to the second base station, to the automatic frequency controller to shift the frequency of the local frequency signal.

Ichihara teaches where the AFC controlling a local frequency signal (see fig. 2, number 7, col. 2, lines 46-55, col. 3, lines 16-20, 66-67, col. 4, lines 1-15); a memory unit (see fig. 2, number 13, col. 3, lines 66-67, col. 4, lines 1-15) for storing a plurality of AFC parameter sets, each AFC parameter set being corresponding to a base station within the wireless cellular system and the control module (see fig. 2, number 12, col. 2, lines 63-67) fetches the AFC parameter set, which corresponds to the second base station, from the memory unit and applies the fetched AFC parameter set, which corresponds to the second base station, to the automatic frequency controller to shift the frequency of the local frequency signal. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Ichihara into the system of Morimoto in order to enable the synchronization and spectrum de-spreading.

As to claims 6, 16, Morimoto teaches an auxiliary system of an automatic frequency controller (see fig. 2, number 43, paragraphs 0025, 0028-0030) applied in a mobile station of a wireless cellular system for automatically controlling a frequency signal to be substantially synchronized with an input signal which is a first received signal from a first base station and being capable of shifting the frequency of the local frequency signal to be close to that of a second received signal from a second base station when the input signal is changed from the first received signal to the second

Art Unit: 2618

received signal, the system comprising: a control module (see fig. 2, number 43, paragraphs 0025, 0028-0030); wherein when the input signal is changed from the first received signal to the second received signal. Morimoto fails to teach where the AFC controlling a local frequency signal; a memory unit for storing a plurality of AFC parameter sets, each AFC parameter set being corresponding to a base station within the wireless cellular system and the control module fetches the AFC parameter set, which corresponds to the second base station, from the memory unit and applies the fetched AFC parameter set, which corresponds to the second base station, to the automatic frequency controller to shift the frequency of the local frequency signal.

Ichihara teaches where the AFC controlling a local frequency signal (see fig. 2, number 7, col. 2, lines 46-55, col. 3, lines 16-20, 66-67, col. 4, lines 1-15); a memory unit (see fig. 2, number 13, col. 3, lines 66-67, col. 4, lines 1-15) for storing a plurality of AFC parameter sets, each AFC parameter set being corresponding to a base station within the wireless cellular system and the control module (see fig. 2, number 12, col. 2, lines 63-67) fetches the AFC parameter set, which corresponds to the second base station, from the memory unit and applies the fetched AFC parameter set, which corresponds to the second base station, to the automatic frequency controller to shift the frequency of the local frequency signal. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Ichihara into the system of Morimoto in order to enable the synchronization and spectrum de-spreading.

2. Claims 2, 7, 12, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morimoto (US 2004/0176148) in view of Ichihara (US 6,275,699) further in view of Applicant Admitted Prior Art.

As to claims 2, 7, 12, 17, the combination of Morimoto and Ichihara fails to teach wherein the automatic frequency controller comprises: a frequency detection module for comparing the input signal with the local frequency signal, and outputting a frequency error between the input signal and the local frequency signal; a processing module for receiving the frequency error and generating a frequency control signal; a frequency generator for generating the local frequency signal according to the frequency control signal. Applicant Admitted Prior Art teaches wherein the automatic frequency controller comprises: a frequency detection module (see fig. 2, number 19, paragraph 0008) for comparing the input signal with the local frequency signal, and outputting a frequency error between the input signal and the local frequency signal; a processing module (see fig. 2, number 20, paragraph 0008) for receiving the frequency error and generating a frequency control signal; a frequency generator (see fig. 2, number 22, paragraph 0008) for generating the local frequency signal according to the frequency control signal. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Applicant Admitted Prior Art into the system of Morimoto and Ichihara in order to synchronize the input signals with the local frequency signals.

Allowable Subject Matter

3. Claims 3-5, 8-10, 13-15, 18-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As to claims 3, 8, 13, 18, the applied reference fails to teach the automatic frequency control system, wherein the control module further extracting the AFC parameter set from the automatic frequency controller and stores the AFC parameter set to the memory unit as cited in the claim.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Majaniemi (US 20030054772) teaches method for performing measurement in wireless terminal and a wireless terminal.

Mori (US 5,774,800) teaches radio communication apparatus with reference frequency control based on stored characteristic control data.

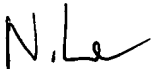
Kurisu et al (US 5,634,205) teaches radio equipment based on AFC system with temperature and detection and method of AFC.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhan T. Le whose telephone number is 571-272-7892. The examiner can normally be reached on 08:00-05:00 (Mon-Fri).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on 571-272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2618

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Nhan Le



EDWARD F. URBAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600